CALS TEST NETWORK

CTN Test Report 92-014

AFTB-ID 92-027

Technical Publication Transfer Test Using

Hughes Tucson Support Systems Operation

MIL-D-28001A (SGML)

Quick Short Test Report

10 November 1992

Prepared for

Air Force Materiel Command

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1. Introduction

1.1 Background

The DoD Computer-aided Acquisition and Logistics Support (CALS) Test Network (CTN) is conducting tests of the military standard for the Automated Interchange of Technical Information, MIL-STD1840A, and its companion suite of military specifications. The CTN is a DoD-sponsored confederation of voluntary participants from industry and government managed by the Air Force Material Command.

The primary objective of the CTN is to evaluate the effectiveness of the CALS Standards for technical data interchange and to demonstrate the technical capabilities and operational suitability of those standards. Two general categories of tests are performed to evaluate the standards, formal and informal. Formal tests are large, comprehensive tests that follow a written test plan, require specific authorization from DoD, and may take months to prepare, execute, and report.

Informal tests are used by the CTN technical staff to broaden the testing base by including representative samples of the many systems and applications used by CTN participants. They also allow the CTN staff to gain feedback from many industry and government interpretations of the Standards, to increase the base of participation in the CALS initiative, and to respond, in a timely manner, to the many requests for help that come from participants. Participants take part voluntarily and are benefited by receiving an evaluation of their latest implementation (interpretation) of the standards, interacting with the CTN technical staff, gaining experience in use of the standards, and developing increased confidence in them. The results of informal tests are reported in Quick Short Test Reports (QSTRs) that briefly summarize the standard(s) tested, the hardware and software used, the nature of the test, and the results.

1.2 Purpose

The purpose of the informal test reported in this QSTR was to analyze Hughes Tucson Support Systems Operation's interpretation and use of the CALS Standards in transferring technical publications data. Hughes TSSO used its CALS Technical Data Interchange System to produce data in accordance with the standards and delivered it to the CTN technical staff on a 9-track magnetic tape.

2. Test Parameters

Test Plan: AFTB 92-27

Date of Evaluation: 7 April 1992

Evaluator:
George Elwood
Air Force CALS Test Bed
AFMC/ENCT
4027 Colonel Glenn Hwy
Suite 200
Dayton, OH 45431-1601

Data Originator:
Hughes Tucson Support Systems Operation
Ken Virgil
PO Box 11337
Tucson, AZ 85734

Data Description:
Technical Manual Test
1 document declaration file
1 TEXT file

Data Source System:

Text/SGML

HARDWARE
Unknown

SOFTWARE
Unknown

Evaluation Tools Used:

MIL-STD-1840A (TAPE)
SUN 3/280
CTN Tapetools (v1.2.8) UNIX
Agfa Compugraphics CALS v40.4

MIL-M-28001 (SGML)
SUN 3/60
AGFA Compugraphics CALS
Cheetah Gold 486
Exoterica XGML V1.2e3.2
Datalogics ParserStation v3.36

Standards Tested:
MIL-STD-1840A
MIL-M-28001A

3. 1840A Analysis

3.1 External Packaging

The tape arrived at the Air Force Test Bed enclosed in a box IAW ASTM D 3951. The exterior of the box was marked with the required magnetic tape warning label, MIL-STD-1840A, para. 5.3.1.3.

The tape was not enclosed in barrier bag as required by MIL-STD-1840A, para. 5.3.1.2. Inspection of the tape reel showed the required label indicating the recording density as required by MIL-STD-1840A, para. 5.3.1. Not enclosed in the box was a packing list showing all files that were recorded on the tape.

3.2 Transmission Envelope

The 9-track tape received by the Air Force Test Bed contained MIL-STD-1840A files. The files were named per the standard conventions.

3.2.1 Tape Formats

The 1840A Tape was run through the AFTB TAPETOOL utility version 1.2.8. No errors were encountered while evaluating the contents of the tape labels.

The tape was read without error using Agfa CAPS *read1840A* utility.

3.2.2 Declaration and Header Fields

No errors were reported in the Document Declaration File header or data header file header records.

4. IGES Analysis

No IGES files were included on the tape.

5. SGML Analysis

The text file from this document was tested using the Exoterica XGMLNormalizer parser. No errors were reported from this operation.

The text file was also parsed using Datalogics *ParserStation* with not reported errors.

6. Raster Analysis

No raster images were included on the tape.

7. CGM Analysis

No CGM files were included on the tape.

8. Conclusions and Recommendations

In summary, the MIL-STD-1840A tape from Hughes Tucson Support Systems Operation was correct. The tape could be read properly using the CTN *Tapetool* Software with no reported errors.

The text file parsed without reported error using the available parsers in the AFCTB.

The tape and text file included meet current CALS Standards.

9. Appendix A - Tape Tool Report Logs

9.1 Tape Catalog

CALS Test Network Catalog Evaluation - Version 1.2; Release Number 8

Standards referenced:
MIL-STD-1840A (1987) - Automated Interchange of Technical Information
ANSI X3.27 (1987) - File Structure and Labelling of Magnetic Tapes for Information Interchange
ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Tue Apr 7 08:50:47 1992

MIL-STD-1840A File Catalog

File Set Directory: /cals/tapetool8/Set101

Page: 1

File Name	File Type	Record Format/ Length	Block Length/Total	Selected/ Extracted
D001	Document Declaration	D/00260	02048/000001	Extracted
D001T001	Text	D/00260	02048/000008	Extracted

Catalog Process terminated normally.

9.2 Tape Evaluation Log

```
CALS Test Network Tape Evaluation - Version 1.2; Release Number 8
  Standards referenced:
    ANSI X3.27 (1987) - File Structure and Labelling of Magnetic Tapes
                        for Information Interchange
    ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Tue Apr  7 08:50:45 1992

ANSI Tape Import Log

Allocating tape drive /dev/rmt0...

/dev/rmt0 allocated.

VOL1GM0101                          CALS01                                4

  Label Identifier: VOL1
  Volume Identifier: GM0101
  Volume Accessibility:
  Owner Identifier: CALS01
  Label Standard Version: 4

HDR1D001            GM0101000100010001000100 92086 92086 000000

  Label Identifier: HDR1
  File Identifier: D001
  File Set Identifier: GM0101
  File Section Number: 0001
  File Sequence Number: 0001
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date:  92086
  Expiration Date:  92086
  File Accessibility:
  Block Count: 000000
  Implementation Identifier:

HDR2D0204800260                                   00

  Label Identifier: HDR2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00

************ Tape Mark ***************
```

Actual Block Size Found = 2048 Bytes.

Number of data blocks read = 1.

********** Tape Mark **********

EOF1D001 GM010100010001000100 92086 92086 000001

Label Identifier: EOF1
File Identifier: D001
File Set Identifier: GM0101
File Section Number: 0001
File Sequence Number: 0001
Generation Number: 0001
Generation Version Number: 00
Creation Date: 92086
Expiration Date: 92086
File Accessibility:
Block Count: 000001
Implementation Identifier:

EOF2D0204800260 00

Label Identifier: EOF2
Recording Format: D
Block Length: 02048
Record Length: 00260
Offset Length: 00

********** Tape Mark **********

HDR1D001T001 GM010100010002000100 92086 92086 000000

Label Identifier: HDR1
File Identifier: D001T001
File Set Identifier: GM0101
File Section Number: 0001
File Sequence Number: 0002
Generation Number: 0001
Generation Version Number: 00
Creation Date: 92086
Expiration Date: 92086
File Accessibility:
Block Count: 000000
Implementation Identifier:

HDR2D0204800260 00

```
  Label Identifier: HDR2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00

************ Tape Mark ***************

  Actual Block Size Found = 2048 Bytes.

  Number of data blocks read = 8.

************ Tape Mark ***************

EOF1D001T001         GM010100010002000100 92086 92086 000008

  Label Identifier: EOF1
  File Identifier: D001T001
  File Set Identifier: GM0101
  File Section Number: 0001
  File Sequence Number: 0002
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date:  92086
  Expiration Date:  92086
  File Accessibility:
  Block Count: 000008
  Implementation Identifier:

EOF2D0204800260                                    00

  Label Identifier: EOF2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00

************ Tape Mark ***************

************ Tape Mark ***************

############ End of Volume GM0101 ###############

############ End Of Tape File Set ###############

Deallocating /dev/rmt0...

Tape Import Process terminated normally.
```

9.3 Tape File Set Validation Log

```
CALS Test Network File Set Evaluation - Version 1.2; Release Number 8
  Standards referenced:
    MIL-STD-1840A (1987) - Automated Interchange of Technical Information

Tue Apr  7 08:50:47 1992

MIL-STD-1840A File Set Evaluation Log

File Set: Set101

Found file: D001
Extracting Document Declaration Header Records...
Evaluating Document Declaration Header Records...

srcsys: Hughes Aircraft Co., Tucson Support Systems Operation (IBM LDL), Tucson AZ 85734
srcdocid: NONE
srcrelid: NONE
chglvl: ORIGINAL
dteisu: 19920325
dstsys: UNKNOWN
dstdocid: NONE
dstrelid: NONE
dtetrn: 19920326
dlvacc: NONE
filcnt: T1
ttlcls: UNCLASSIFIED
doccls: UNCLASSIFIED
doctyp: Operation & Maintenance Instructions
docttl: Technical Manual, TBD


Found file: D001T001
Extracting Text Header Records...
Evaluating Text Header Records...

srcdocid: NONE
dstdocid: NONE
txtfilid: W
doccls: UNCLASSIFIED
notes: NONE

Saving Text Header File: D001T001_HDR
Saving Text Data File: D001T001_TXT

Evaluating numbering scheme...
No errors were encountered during numbering scheme evaluation.
```

Numbering scheme evaluation complete.

Checking file count...
No errors were encountered during file count verification.
File Count verification complete.

No errors were encountered in Document D001.

No errors were encountered in this File Set.

MIL-STD-1840A File Set Evaluation Complete.

10. Appendix B - SGML Parser Logs

10.1 XGML Parser Log

No reported errors.